

.DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Acharya et al. (6922462). Acharya et al. disclose a system and method for plaque characterization by obtaining a first set of image data including a plurality of first pixel elements and a second set of image data including a plurality of second pixel elements and calculating a third set of image data from the first and second set of image data. Acharya et al. teach a method of locating a vessel of interest in the object, identifying non-calcified or soft plaque and calcium-rich plaque. (col. 2 lines 21- col. 3 line 41). The imaging system may be a CT or MR system (col. 4 lines 10-14). Acharya et al. teach obtaining multiple images where lower x-ray energy levels are known to be effective in imaging soft tissues or non-calcified plaque and higher x-ray energy levels are used for imaging high-density structures or calcified plaques (col. 5 lines 41-47). The method also includes administering a contrast agent for contrast enhancement of vascular vessels in the multi-slice computed tomography modality (col. 6 lines 13-37). Acharya

et al. include the image data processing steps of identifying and quantifying soft or non-calcified tissue and calcified plaque with contrast enhancement. This includes identifying and segmenting the vessel of interest, tracking the vessel with high x-ray energy level to determine where flow of the contrast agent narrows and widens and generating a curve reformat image. The volume of plaque is then quantified by looking at the soft plaque absorption coefficient. The structure of the plaque is determined by using the difference between the lower x-ray energy level and the higher x-ray energy level (col. 7 lines 10-43). Therefore Acharya et al. teach method of promoting a better understanding of cardiovascular disease progression by administering x-rays of varying energy levels in an interleaving fashion to produce images of calcified and soft-tissue plaque.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BAISAKHI ROY whose telephone number is (571)272-7139. The examiner can normally be reached on M-F (7:30 a.m. - 4p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian L. Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3737

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brian L Casler/
Supervisory Patent Examiner, Art
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BR
/B. R./
Examiner, Art Unit 3737